ABSTRACT OF THE DISCLOSURE

In an optical recording/reproducing method and apparatus of the present invention, a modulation parameter is calculated for each of reproduced data signals, each modulation parameter corresponding to one of respective recording powers. An optimum recording power is determined based on a relationship between the modulation parameters and the recording powers, wherein a sequence of pairs of the modulation parameter and the recording power is selected, a gamma, which defines a ratio of a change of the modulation parameter to a change of the recording power, is calculated for each of the selected pairs, and a target recording power corresponding to the optimum recording power is found based on a function derived from a relationship between the calculated gammas and the respective recording powers, the target recording power causing a value of the function to be equal to zero. When selecting the pairs of the modulation parameter and the recording power, a pair of the modulation parameter and the recording power is omitted if a value of the modulation parameter of the pair is not larger than a threshold value, and a pair of the modulation parameter m and the recording power p is selected if a value of the modulation parameter of a following pair first exceeds the threshold value.